

**GUAYANIA DAVIDSEI AND HEBECLINIUM GENTRYI,
NEW SPECIES FROM NORTHERN SOUTH AMERICA
(EUPATORIEAE—ASTERACEAE)¹**

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ABSTRACT

Descriptions and discussions of relationships are provided for *Guayania davidsei* R. M. King & H. Robinson from the Amazonas region of Venezuela and *Hebeclinium gentryi* R. M. King & H. Robinson from the Chocó region of Colombia.

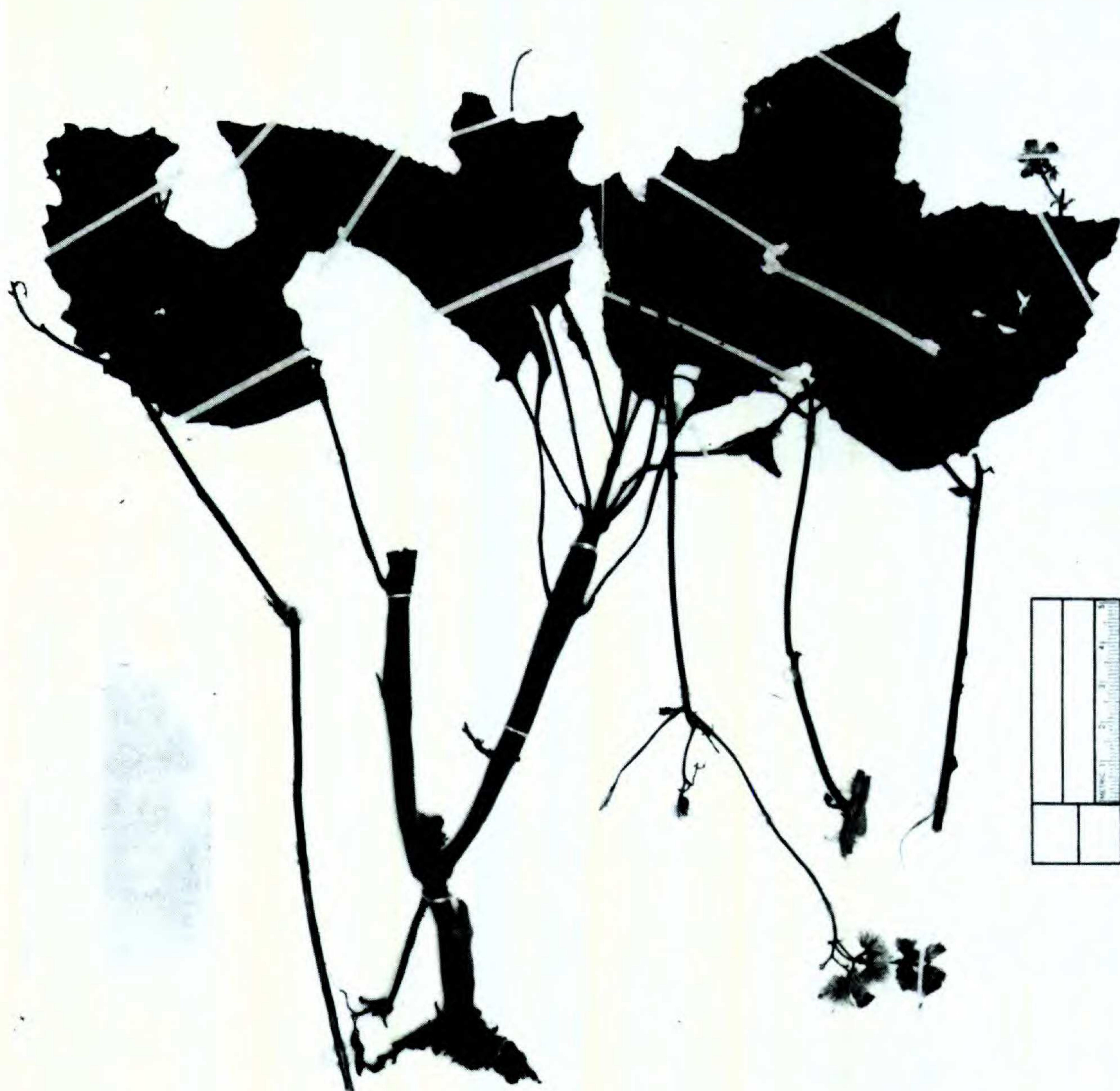
Collecting efforts of two members of the staff of the Missouri Botanical Garden have provided two new species belonging to the *Hebeclinium* complex of the tribe Eupatorieae (King & Robinson, 1971a, 1971b). The complex is notable for the partially deciduous subimbricate involucral bracts, the simple structure of the style base, the smooth corolla lobes, the long nonannulated anther collars, and for a tendency to bear hairs on the receptacle. The latter character which was the traditional distinction of *Hebeclinium* is, however, not consistent throughout the group, being absent in some species of *Hebeclinium* sens. str. and lacking in all species of *Guayania*. The genera *Hebeclinium* and *Guayania* are most easily distinguished by the extremely filiform style appendages of the former and by the strongly asymmetric carpopodium of the latter. With the present additions *Hebeclinium* has 19 species concentrated in the northern Andes with one species, *H. macrophyllum* (L.) DC., widely distributed. *Guayania* now contains 6 species all restricted to the Guayana Highlands region and to the surrounding lowlands of the Orinoco and Amazon.

Guayania davidsei R. M. King & H. Robinson, sp. nov.—FIG. 1.

Plantae herbaceae perennes erectae ca. 4 dm altae paucce ramosae. Caules succulenti anguste jatrophiformes superne abbreviati et in inflorescentia abrupte terminati glabri et in sicco irregulariter striati. Folia opposita superne congesta, petiolis 4–6 cm longis; laminae ovatae 9–12 cm longae et 6.0–7.5 cm latae penninervatae base late obtusae margine serratae apice vix breviter acuminatae supra et subtus glabrae vel ad marginem sparse puberulae. Inflorescentiae laxae cymosae, ramis dense puberulis, pedicellis 0.3–1.5 mm longis. Capitula 5.0–5.5 mm longa et 3–4 mm lata; squamae involucri ca. 28 et 4–5-seriatae 1.0–4.5 mm longae ad 1 mm latae exteriores late ovatae interiores sensim oblongae vel anguste lanceolatae margine et apice distinete scariosae et minute puberulae apice late vel anguste rotundatae extus glabrae et plerumque 3-striatae; receptacula leniter convexa glabra. Flores ca. 22 in capitulo; corollae albae tubulosae ca. 3 mm longae, faucis tubulosis base indistinctis, lobis ca. 0.3 mm longis et 0.25

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PLANTS OF VENEZUELA

COMPOSITAE
Guayania davidsei R.M.King & H.Robinson

Holotype
AMAZONAS: 20 KM S of Puerto Ayacucho;
elev. 100 m.
Low forested hills East of highway with
savanna at base.
At edge of large boulder outcrops in forest
in shade--at least partially--on small hills.
Heads white.
•Gerrit Davidse 2845 2 November 1971
MISSOURI BOTANICAL GARDEN HERBARIUM

FIGURE 1. *Guayania davidsei* R. M. King & H. Robinson, holotype, United States National Herbarium. Photo by Victor E. Krantz, Staff Photographer, National Museum of Natural History.

mm latis, faucis superioribus et lobis extus breviter puberulis, pilis moniliformibus; filamenta in parte superiore ca. 0.25 mm longa; thecae ca. 0.8 mm longae; appendices antherarum oblongae ca. 0.15 mm longae et latae; grana pollinis ca. 18 μ in diametro; achaenia 1.5 mm longa plerumque in costis breviter setifera;

setae pappi ca. 25 tenues ca. 3 mm longae superne non latiores, cellulis apicalibus argute acutis.

TYPE: VENEZUELA. AMAZONAS: 20 km S of Puerto Ayacucho, 100 m, low forested hills E of highway with savanna at base, at edge of large boulder outcrops in forest in shade—at least partially—on small hills, heads white, 2 Nov. 1971, *Gerrit Davidse* 2845 (US, holotype; MO, isotype).

Guayania davidsei is the second member of the genus with modified stem structure and abrupt bases on the inflorescences. In this species the stems are somewhat thickened with more congested leaves in the upper part, providing the superficial resemblance to a *Jatropha*. The related *G. bulbosa* (Arist.) R. M. King & H. Robinson has stems completely underground and tuberous. The latter species also differs by the glanduliferous branches of the inflorescence. The new species is apparently from low elevations, while *G. bulbosa* is reported from talus slopes at 1,500 m elevation on Serrania Parú.

Hebeclinium gentryi R. M. King & H. Robinson, sp. nov.—FIG. 2.

Plantae suffrutescentes erectae ca. 1 m altae? Caules obscure tetragoni sordide lanosi. Folia opposita, petiolis 0.5–1.0 cm longis; laminae ovatae 3.5–7.0 cm longae et 1.8–3.7 cm latae base breviter obtusae vel subrotundatae margine minute serratae vel duplo-serratae apice distinete breviter acuminatae supra virides glabrae vel glabrescentes fere ad marginem et nervis primariis minute puberulis subtus fulviores obscure glandulo-punctatae in nervis et nervulis dense sordide puberulae, nervis secondariis pinnatis valde ascendentibus paucis. Inflorescentiae corymboso-paniculatae, ramis dense puberulis, ramulis ultimis 1–5 mm longis. Capitula plerumque 5 mm alta et 3.5–4.0 mm lata; squamae involuci ca. 40 subimbricatae 4–5-seriatae valde inaequales 1–3 mm longae 0.3–0.6 mm latae anguste oblongae apice rotundatae margine minute dense puberulae extus plerumque trisulcatae superne in bracteis interioribus sensim dense puberulae; receptacula leviter convexa sparse puberula interne non scleroidea. Flores ca. 25; corollae albae tubulosae ca. 3 mm longae; fauca tubulosis base indistinctis glabris, lobis triangularibus ca. 0.4 mm longis et latis extus dense minute puberulis, pilis brevibus in apicem subclavatis; filamenta in parte superiore ca. 0.15 mm longa; thecae ca. 0.8 mm longae; appendices antherarum late oblongae ca. 0.15 mm longae et latae; grana pollinis ca. 20 μ in diametro; achaenia 1.5 mm longa sparse minute glandulifera superne paucis sed non breviter setifera; setae pappi ca. 45 plerumque ca. 2.5 mm longae ad apicem vix vel non latiores, cellulis apicalibus obtusis.

TYPE: COLOMBIA. CHOCÓ: Alto de Buey, 1,200–1,800 m, tropical wet forest, weak-stemmed shrub, flowers white, 8 Jan. 1973. Al Gentry & Enrique Forero 7290 (US, holotype; MO, isotype).

Hebeclinium gentryi is most closely related to *H. reedii* R. M. King & H. Robinson (King & Robinson, 1972) of adjacent Darién Province of Panama. The two species share the lanate stems, the pubescent outer surfaces of the involucral bracts, less hemispherical receptacles than usual in the genus, and



FIGURE 2. *Hebeclinium gentryi* R. M. King & H. Robinson, holotype, United States National Herbarium.

leaves with at least partially doubly serrate margins. The new species does have a different appearance from *H. reedii* by the smaller leaves and the more neatly oblong subimbricate involucral bracts, but the more significant differences are the glabrous to glabrescent upper leaf surfaces, the less pubescent

surface and larger area of pith on the receptacles, the scarcely enlarged tips of the pappus setae, and the glanduliferous achenes. In *H. reedii* the upper surfaces of the leaves are coarsely pilose, the receptacles are shortly but densely puberulous on the ridges, the pith of the receptacles is very reduced, the pappus setae have prominently enlarged tips, and the achenes are glabrous.

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